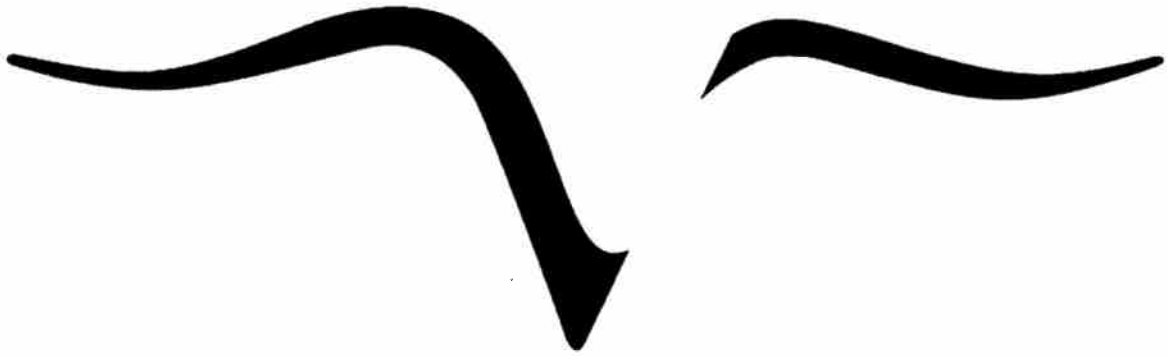

VERNON, TEXAS

WATER CONSERVATION PLAN
AND
DROUGHT
CONTINGENCY PLAN

UPDATED / APPROVED :
APRIL 28, 2009

INDEX

Section:

WATER CONSERVATION PLAN
FOR CITY OF VERNON, TEXAS

1.0 INTRODUCTION AND OBJECTIVES

Water supply has always been a key issue in the development and growth of North Central Texas, Including Vernon and Wilbarger County In recent years; the increasing population and economic development in Region B have led to growing demands for water. At the same time, local and less expensive sources of water supply are largely developed. Additional supplies to meet higher demands will be expensive and difficult to develop. Therefore, it is important that we make efficient use of existing supplies and make them last as long as possible.

Recognizing the need for efficient use of existing water supplies, the Texas Commission on Environmental Quality (TCEQ) has developed guidelines and requirements governing the development of water conservation and drought contingency plans for public water supplier. The TCEQ guidelines and requirements for water suppliers are included in Appendix A. The City of Vernon has adopted this water conservation plan pursuant to TCEQ guidelines and requirements.

The objectives of the water conservation plan are:

- To reduce water consumption
- To reduce the loss and waste of water
- To identify the level of water reuse
- To improve efficiency in the use of water
- To extend the life of current water supplies by reducing the rate of growth and demand

1.1 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES

The TCEQ rules governing development of water conservation plans for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Texas Administrative Code, which is included in Appendix B. For the purpose of these rules, a water conservation plan is defined as:

"A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s)."

According to TCEQ rules, water conservation plans for public water suppliers must have a certain minimum content (Section 3), and must have additional content for public water suppliers that are projected to supply 5,000 or more people in the next ten years (Section 4), and may have additional optional content (Section 5).

1.2 Texas Administrative Code – Water Conservation Plan Content

The minimum requirements in the Texas Administrative Code for water conservation plans for public drinking water suppliers covered in this report are as follows:

A. 288.2(a) (1) – Utility Profile – Section 3.1
B. 288.2(a) (1) – Specification of Goals before May 1, 2009 – Section 3.2
C. 288.2(a) (1) – Specification of Goals after May 1, 2009 – Section 3.2
D. 288.2(a) (1) – Accurate Metering – Sections 3.3 and 3.4
E. 288.2(a) (1) – Universal Metering – Section 3.4
F. 288.2(a) (1) – Determination and Control of Unaccounted Water – Section 3.5
G. 288.2(a) (1) – Public Education and Information Program – Section 3.6

H. 288.2(a) (1) – Non-Promotional Water Rate Structure – Section 3.7
I. 288.2(a) (1) – Reservoir System Operation Plan

J. 288.2(a) (1) – Means of Implementing and Enforcement – Section 3.9, Appendix E

K. 288.2(a) (1) – Coordination with Regional Water Planning Group – Section 3.10 and Section D

2.0 Utility Profile

This water conservation plan is a water utility profile for the City of Vernon, based on the format recommended by the TCEQ. The following is provided:

Water Utility Profile for the City of Vernon:

Water Service Area = Approx. 900 miles

Miles of Distribution Pipe = 98 miles

Population: 12500

Current Population = 12500 in 2008
2000 Population- Unknown
Projected 2060 Population = 12500

Connections:

Current Connections = 4350 in 2009
Total Increase in Connections in Last Five Years = none (remains flat)

Information on Water Use for the Last Five Years

The following *municipal per capita* water use does not include industrial use:

Year	Use (Million Gallons)	Estimated Population	Municipal per Capita	Unaccounted Water
2008	816,202,100	12500	124 gallons	40,415,683
2007	764,244,000	12500	117 gallons	27,000,000
2006	898,239,000	13288	131 gallons	79,832,612
2005	813,657,000	11077	142 gallons	81,988,070
2004	855,639,000	12793	119 gallons	103,587,000

*Source of population estimates: Texas Workforce Commission, Wilbarger County Office.

Water Supply Source(s) = 100% Groundwater

Seymour Aquifer

Treatment and Distribution System:

Treatment Plant Capacity = 8.5 million gallons per day
Elevated Storage =1.0 million gallons per day
Ground Storage = 1.5 million gallons

3.0 Specification of Water Conservation Goals and Targets

The Utility Profile in Section 2 above indicates the historical water use for the previous 5-year period. The following goals and targets have been established utilizing the 5-year average of per capita per day usage, and is applicable for the dry years, in which outdoor water use would be higher.

3.1 5 Year and 10 Year Target / Goals:

A. Achieve 2010 per capita municipal water use of 135 gpcd, or less.

B. Achieve 2015 per capita municipal water use of 135 gpcd, or less.

C. Maintain the 10 year meter replacement program.

D. Keep the level of unaccounted water in the system less than 10 percent over the 10-year target period.

E. Raise public awareness of water conservation and encourage responsible public behavior though a public education and information program, as discussed in section 9.0.

F. Achieve metering of all un-metered public connections by the year 2012.

4.0 Accurate Metering of Raw Water Supplies and Treated Water Deliveries

Raw water and treated water pumped, for all customers of the City of Vernon, including public and governmental users, is metered. Each meter has an accuracy of plus or minus 5 percent. The meters are to be replaced every 10 years as needed; meters are tested on request of the customers.

4.1 Metering of Customers and Public Uses and Meter Testing and Replacement

Water usages for all customers of City of Vernon, including public and government users, is metered. As part of water conservation, the City of Vernon operates a meter replacement program that will replace every 10 years cycle. In addition, meters registering any unusual or questionable readings are tested or replaced to restore full functionality.

4.2 Determination and Control of Unaccounted Water

Unaccounted water is the difference between raw water and metered water (This includes authorized but unmetered uses such as fire fighting and releases for flushing of dead end lines.) Unaccounted water can include several categories:

A. Inaccuracies in customers meters (customers meters tend to run more slowly as they age and under – report actual use)
B. Losses due to water main breaks and leaks in the water distribution system
C. Losses due to illegal connections

The City of Vernon will conduct a water audit every five years using the format recommended by the Texas Water Development Board. The audit will divide water losses and real losses. Apparent water losses include water

that was actually used but not accounted for, such as customer meter errors or theft. Accounting for apparent losses increases the City's utility revenue but does not reduce water usage. Real losses include leakage and overflows at the water treatment plant. Identifying and preventing real losses decreases a utility's costs and decreases water usage.

The City will target real losses under the conservation strategy.

5.0 Public Education

5.1 The continuing public education and information campaign on water conservation for the City of Vernon includes the following elements:

A. Promote the City's water conservation measures.

B. Include inserts on the water conservation with water bills or mail outs at least twice per year. Inserts will include materials developed by the City of Vernon staff and materials obtained from the Texas Water Development Board (T.W.D.B.), the Texas A &M Water Conservation, the Texas Commission on Environmental Quality (T.C.E.Q.), and other sources.

C. Encourage local media coverage of water conservation issues and the importance of water conservation.

D. Notify local organizations, schools, and civic groups that City of Vernon staff is available to make presentations on the importance of water conservation and ways to conserve water.

E. Make water conservation brochures and other water conservation materials available to the public at the Carnegie City-County Library and other public places.

F. Identify & Educate customers who appear not to be conserving water. Examples of not Conserving Water include water running down the street, curb from watering lawns and gardens. Watering

5.2 SUGGESTED WAYS TO SAVE WATER:

Bathroom:

a. Take a shower instead of filing the tub and taking a bath. Showers usually use less water than a tub baths.
b. Install a low- flow shower head which restricts the quantity of the flow.
c. Take short showers and install a cutoff valve or turn the water off while soaping and back on again only to rinse off.

d. Do not use hot water when cold will do, Water and energy can save by washing hands with soap and cold water; hot water should be only added when hands are especially dirty.

e. Reduce the level of the water being used in a bathtub by one or two inches if a shower is not available.

f. Turn water off when brushing teeth until it is time to rinse.

g. Do not let the water run when washing hands. Instead, hands should be wet, and water should be turned off while soaping and scrubbing and turned on again to rinse.

h. Shampoo hair in the shower. Shampooing in the shower takes only a little more than is used to shampoo hair during a bath and much less than shampooing and bathing separately.

i. Hold hot water in the basin when shaving instead of letting the faucet continue to run.

j. Test toilets for leaks. To test for leaks, a few drops of food coloring can be added to the water in the tank. The toilet should not be flushed. The customer can then watch to see if the coloring disappears in the bowl within a few minutes. If it does, the fixture needs adjustment or repair.

k. Use a toilet tank displacement devise. A one-gallon plastic bottle can be filled with stones or with water, recapped, and place in the toilet tank. This will reduce the amount of water in the tank but still provide enough for flushing. (Bricks which some people use for this purpose are not recommended. They crumble eventually and could damage the working mechanism, necessitating a call to the plumber). Displacements devices should be used with new low- volume flush toilets.

l. Install faucet aerators to reduce water consumption.

m. Never use the toilet to dispose of cleansing tissues, cigarette butts, or other trash. This can waste a great deal of water and also places an unnecessary load on the sewage treatment plant or septic tank.

n. Install a new low-volume flush toilet that uses 4.0 gallons or less per flush when building a new home or remodeling a bathroom.

Kitchen:

a. Using a pan of water (or place a stopper in the sink) for rinsing pots and pans and cooking implements when cooking rather than turning on the water faucet each time a rinse is needed.
b. Never run the dishwasher without a full load. In addition to saving water, expensive detergent will last longer and a significant energy saving will appear on the utility bill.
c. Use the sink disposal sparingly, and never use it for scraps.
d. Keep a container of drinking water in the refrigerator, running water from the tap until it is cool is wasteful. Better still, save both water and energy by keeping cold water in a picnic jug on the kitchen counter to avoid opening the refrigerator door frequently.
e. Use a small pan of cold water when cleaning vegetables rather than letting the faucet run.
f. Use only a little water in the pot and put a lid on it for cooking most foods. Not only does this method save water, but food is more nutritious since vitamins and minerals are not poured down the drain with the extra cooking water.
g. Use a pan of water for rinsing when washing dishes hand rather than running the faucet.
h. Always keep water conservation in mind, and think of other ways to save in the kitchen. Small kitchen savings, such as not making too much coffee or letting ice cubes melt in the sink can add up in a year's time.

Laundry:

a. Wash only a full load when using an automatic washing machine (automatic washers require 32 to 59 gallons per load).
b. Use the lowest water level setting on the washing machine for a light loads whenever possible.
c. Use cold water as often as possible to save energy and to conserve the hot water for uses which cold water cannot serve. (This is also for clothing made of today's synthetic fabrics).

For Appliances and plumbing:

a. Check water requirements of various models and brands when considering purchasing any new appliance that uses water. Some use less water than others.
b. Check all waterlines connections and faucets for leaks. If the cost of water is $2.62 per 1000 gallons, one could pay a large bill for water that simply goes down the drain because of the leakage. A slow drip can waste as much 170 gallons of water each day, or 5000 gallons per month, and can add as much as $13.00 per month to the water bill.
c. Learn to replace faucet washers so that drips can be corrected promptly. It is east to do, cost very little, and can represent a substantial savings in plumbing and water bills.
d. Check for water leakage that the customer may be entirely unaware of, such as a leak between the water meters in the house. To check, turn off all indoor and outdoor faucets. If the water meter continues to run or turn, a leak probably exists and needs to be located.
e. Insulate all hot water pipes to avoid the delays (and waste water experienced while waiting for the water to run hot.
f. Be sure the hot water heater thermostat is not set too high. Extremely hot settings waste water and energy because the water often has to be cooled with cold water before it can be used.

g. Use a moisture meter to determine when house plants need water. More plants die from over-watering than being on the dry side.

OUT-OF-DOOR USE: Encourage the Use of Texas A&M Water Conservation Practices:

a. Water lawns early in the morning during the hotter summer months. Much of the water used on the lawn can simply evaporate between the sprinkler and the grass.
b. Use a sprinkler that produces large drops of water, rather than a fine mist, to avoid evaporation.
c. Turn soaker hoses so the holes are on the bottom to avoid evaporation.
d. Water slowly for better absorption, and never water in high winds.
e. Forget about watering the streets or walks or driveways. They will never grow a thing.
f. Condition the soil with compost before planting grass or flower beds so that water will soak in rather than run off.
g. Fertilize lawns at least twice a year for root stimulation. Grass with a good root system makes better use of less water.
h. Learn to know when grass needs watering. If it has turned dull grey-green or if footprints remain visible, it is time to water.
i. Do not water frequently. Too much water can overload the soil so that air cannot get to the roots and can encourage plant diseases.
j. Do not over-water. Soil can absorb only so much moisture and the rest simple runs off. A timer may help, and either a kitchen timer or an alarm clock will do. An inch and one-half of water applied once a week will keep most Texas grasses alive and healthy.
k. Operate automatic sprinkler systems only when the demand on the City of Vernon water supply is lowest. Set the system to operate between four and six a.m.
l. Do not scalp lawns when mowing during the hot weather. Taller grass holds moisture better. Rather, grass should be cut fairly often, so that only ½ to ¾ inches is trimmed off. A better looking lawn will result.

m. Using a watering can or hand water with the hose in a small area of the lawn that need more frequent watering (those near walks or driveways or in especially hot, sunny spots).

n. Learn what type of grass, shrubbery, plants do best in the area and in which parts of the lawn, and then accordingly. If one has a heavily shaded yard, no amount of water will make roses bloom. In especially dry sections of the state, attractive arrangements of plant that are adapted to arid or semi-arid climates should be chosen.

o. Consider decorating areas of the lawn with rocks, gravel, wood chips, or other materials now available that require no water at all.

p. Do not "sweep" walks and driveways with the hose. Use a broom or rake instead.

q. Use a bucket of soapy water and use the hose only for rinsing when washing the car.

r. The Texas A&M University System's Water Conservation Guidelines, which indicate that applying 1-inch of water per week is sufficient for maintaining turf grasses and plants.

6.0 Current Water Rate Structure

Every user whose premises is served by a connection to the water of the city, whereby water is used by the user, shall pay based on the following rate schedules:

(1) All residential and commercial class users located inside the corporate boundary limits shall pay as followed:

A. First 2,000 gallons (minimum monthly bill).....$14.40

B. All over 2,000 gallons, per 1,000 gallons.....$ 2.62

(2) All industrial class users receiving treated water located inside the corporate boundary limits, shall pay as followed:

A. First 2,000 gallons (minimum monthly bill.....$14.40
B. All over 2,000 gallons, per 1,000 gallons.....$ 2.62

(3) All industrial class users receiving raw water located inside the corporate boundary limits, shall pay as follows:

A. First 2,000 gallons (minimum monthly bill.....$14.40
B. All over 2,000 gallons, per 1,000 gallons.....$ 1.86

(4) All classes of users receiving treated water, except contract customers as mentioned below in another subparagraph, located outside the corporate boundary limits shall pay as follows:

A. First 4,000 gallons (minimum monthly bill.....$28.06
B. All over 4,000 gallons but less than 20,000 gallons, per 1,000 gallons.....$ 3.28
C. All over 20,000 gallons, per 1,000 gallons.....$3.45

(5) All classes of users receiving raw water, except contract customers as mentioned in another subparagraph, located outside the corporate boundary limits, shall pay as follows:

A. First 4,000 gallons (minimum monthly bill.....$21.98
B. All over 4,000 gallons but less than 20,000 gallons, per 1,000 gallons.....
.....$ 2.44
C. All over 20,000 gallons, per 1,000 gallons.....$ 2.56

(6) All contract users receiving treated water, located outside the corporate boundary limits, their rate is based on the water consumed that is below the listed demand base in the subparagraph, and shall pay two dollars and sixty two cents ($2.62) per one thousand (1000) gallons. All water consumed in an amount above the demand base, as set out below, shall be charged at a rate of three dollars and twenty-eight cents ($3.28) per one thousand (1,000) gallons.

	Maximum Number of Meters	Demand Base Per Mouth
1. Red River Authority Of Texas/ Lockett/Western Lane	300	7.776MG
2. Red River Authority Of Texas – Box	73	6.394MG
3. Oklaunion Water Supply Corp.	130	3.416MG
4. Paradise Water Supply	4	0.105MG

(7) All contract users receiving raw water, located outside the corporate boundary limits, their rate is based on the water consumed that is below the listed demand base in the subparagraph, and shall pay one dollar and fifty three cents ($1.53) per one thousand (1,000) gallons. All water consumed in an amount above the demand base, as set out below, shall be charged at a rate of one dollar and ninety cents ($1.90) per one thousand (1,000) gallons.

A. Red River Authority of Texas (Hinds/ Wildcat 81 max number of meters an 2.22MG Demand Base Per Month.
B. Northside Water Supply Corporation 79 max numbers of meters an 2.075MG Demand base Per Month.

NOTE: The municipal owned bulk water vending machine located near the intersection of Wichita Street and Georgia Street shall charge one dollar ($1.00) per two hundred fifty (250) gallons of water.

7.0 Enforcement of the Water Conservation Plan

The copy of the resolution/ordinance by the City of Vernon Council adopting this water conservation and drought contingency plan. The resolution designated responsible officials to implant and enforce the water conservation and drought contingency plan. The City of Vernon Code of Ordinances under Article VI Section 26-110 authorizes the city manager to implement and enforce the plan.

7.1 Coordination with Regional Water Planning Group

A copy of a letter has been sent to the Chair of the Region B Water Planning Group with this water conservation and drought contingency plan.

7.2 Additional Required Water Conservation Plan Content

The Texas Administrative Code also included additional requirements for water conservation plans for public drinking water suppliers that serve a population of 5,000 people or more and / or a projected population of 5,000 people or more within the next ten years:

A. Leak Detection and Repair; and Water Loss Accounting—Section- 15.1
B. Record Management System Section 15.2
C. Requirement for Water Conservation Plans by Wholesale Customers-Section-15.3

7.3 Leak Detection, Water Loss and Repairs:

Measures to control unaccounted water loss are part of the routine maintenance operations of the City of Vernon. Meter readers watch for and report signs of illegal connections so they can be addressed quickly. Crews and personal look for and report evidence of leaks in the water distribution system. Maintenance crews responds quickly to repair leaks

reported by the public and city personal. The City of Vernon spends approx. $2.0m per year to repair and replace water distribution lines and uses up to three distribution crews. Areas of the water distribution system in which numerous leaks and line breaks occur are targeted for replacement as funds are available.

7.4 Record Management System

As required by TAC Title 30,Part 1, Chapter 288, Subchapter A, Rule 288.2(a)(2)(b), the record management system for the City of Vernon records water pumped, water delivered, and water sold; estimates for water losses; and allows for the separation of water sales and used into residential and commercial categories. This information is in the annual conservation report.

7.5 Requirement for Water Conservation Plan by Wholesale Customers

Wholesale water customers of the City of Vernon are required to develop and implement a water conservation plan meeting the requirements of Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Administrative Code. This requirement is also extended to each successive wholesale customer in the resale of water.

7.6 Non-Regulated Water Conservation Content

T.E.C.Q. rules also list optional (not required) conservation strategies, which may be adopted by suppliers to achieve the stated goals of the plan.

A. 288.2 (a)(3) – Conservation Oriented Water Rates
B. 288.2(a)(3)-- Ordinances, Plumbing Codes or Rules on Water-Conserving Fixtures
C. 288.2(a)(3)—Reuse and Recycling of wastewater
D. 288.2(a)(3) – Pressure Control and /or Reduction
E. 288.2(a)(3) – Landscape Water Management Ordinance

F. 288.2(a)(3) – Monitoring Method

8.0 Drought Contingency Plan:

DROUGHT CONTINGENCY PLAN

FOR THE

CITY OF VERNON

SECTION I. DECLARATION OF POLICY, PURPOSE, AND INTENT

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the City of Vernon hereby adopts the following regulations and restrictions on the delivery and consumption of water.

Water uses regulated or prohibited under this Drought Contingency Plan (the Plan) are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply conditions are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section XI of this Plan.

SECTION II. PUBLIC INVOLVEMENT

A public meeting will be held to provide an opportunity for the public and wholesale water customers to be informed of the Plan.

SECTION III. PUBLIC EDUCATION

The City of Vernon will periodically provide the public and wholesale water customers with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by mailed notification to customers and wholesale water customers.

SECTION IV. COORDINATION WITH REGIONAL WATER PLANNING GROUPS

The service area of the City of Vernon is located within the Region B Regional Water Planning Area, and the City of Vernon has provided a copy of this Plan to the Region B Regional Water Planning Group.

SECTION V. AUTHORIZATION

The City Manager, in consultation with the City Commission, is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The City Manager, in consultation with the City Commission, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

SECTION VI. APPLICATION

The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by the City of Vernon. The terms "person" and "customer" as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

SECTION VII. DEFINITIONS

For the purposes of this Plan, the following definitions shall apply:

Aesthetic water use: water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

Commercial and institutional water use: water use that is integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.

Conservation: those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Customer: any person, company, or organization using water supplied by the City of Vernon.

Domestic water use: water use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution.

Even number address: street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses.

Industrial water use: the use of water in processes designed to convert materials of lower value into forms having greater usability and value.

Landscape irrigation use: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.

Non-essential water use: Water uses that are not essential nor required for the protection of public health, safety, and welfare, including:

(a) Irrigation of landscaped areas, including parks, athletic fields, and golf courses.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle

(c) Use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas.

(d) Use of water to wash down buildings or structures for purposes other than immediate fire protection.

(e) Flushing gutters or permitting water to run or accumulate in any gutter or street.

(f) Use of water to fill, refill, or add to any indoor or outdoor swimming pools or jacuzzi-type pools.

(g) Use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life.

(h) Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

(i) Use of water from hydrants for construction purposes or any other purposes other than fire fighting and flushing of lines to maintain a potable water supply.

Odd numbered address: Street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

SECTION VIII. TRIGGERING CRITERIA FOR INITIATION AND TERMINATION OF DROUGHT RESPONSE STAGES

The City Manager shall monitor water supply and/or demand conditions and shall determine when conditions warrant initiation or termination of each stage of the Plan. Public notification of the initiation or termination of drought response stages shall be by means of publication in the local newspaper, radio announcements, Cable T.V. announcements, emergency management bulletins, and other means as appropriate to the situation.

The triggering criteria described below are based on the actual aquifer water level and the number of inoperative wells due to low water levels.

Stage 1 - Mild Water Shortage Conditions

Requirements for initiation: Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses provided in Section IX for Stage 1 of this Plan when due to low aquifer levels that results in a 15% loss of water production capability for a sustained period of not less than 3 months. Normal production capability, or pumping capacity, is 8,500,000 gallons per day. Stage 1 will be triggered when the production capability falls to 7,225,000 gallons per day for a 3 month sustained period.

Requirements for termination: Stage 1 of the Plan may be rescinded when the aquifer level increases back to normal production capability for a 3 month sustained period.

Stage 2 - Moderate Water Shortage Conditions

Requirements for initiation: Customers shall be requested to voluntarily conserve water and adhere to water use restrictions provided in Section IX for Stage 2 of this Plan when due to low aquifer level that results in a 20% loss of water production for a sustained period of 3 months.

Requirements for termination: Stage 2 of the Plan may be rescinded when the aquifer level increases to either Stage 1 operations, or to normal production capability.

Stage 3 - Severe Water Shortage Conditions

Requirements for initiation: Customers shall be required to comply with the requirements and water use restrictions provided in Section IX for Stage 3 of this Plan when due to low aquifer level that results in a 25% loss of water production for a sustained period of 3 months.

Requirements for termination: Stage 3 of the Plan may be rescinded when the aquifer level increases to return to Stage 2 or Stage 1 or to normal production capability.

Stage 4 - Critical Water Shortage Conditions

Requirements for initiation: Customers shall be required to comply with the requirements and water use restrictions provided in Section IX for Stage 4 of this Plan when due to low aquifer level that results in a 30% loss of water production for a sustained period of 3 months.

Requirements for termination: Stage 4 of the Plan may be rescinded when the aquifer level increases to return to Stage 3, or Stage 2, or Stage 1, or normal production capability.

Stage 5 - Emergency Water Shortage Conditions

Requirements for initiation: Customers shall be required to comply with the requirements and water use restrictions provided in Section IX for Stage 5 of this Plan when due to low aquifer level that results in a 50% loss of water production, or the City Manager determines the city is unable to deliver water of suitable quantity to any part of the system for any reason. Stage 5 restrictions shall apply to that portion of the system affected.

Requirements for termination: Stage 5 of the Plan may be rescinded when all of the conditions causing the water supply emergency cease to exist.

SECTION IX. DROUGHT RESPONSE STAGES

The City Manager shall monitor water supply and/or demand conditions and, in accordance with the triggering criteria set forth in Section VIII of the Plan, shall determine when a mild, moderate, severe, critical, or emergency condition exists and shall implement the following actions by providing notice in accordance with the provisions of Section VIII.

Stage 1 - Mild Water Shortage Conditions

Goal

Raise public awareness and achieve a 5% reduction in total water use.

Voluntary Water Use Restrictions

(a) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

(b) City of Vernon will curtail flushing of distribution lines except when necessary to protect the health and welfare of the public.

(c) City of Vernon will limit watering of public areas to the hours between 7:00 a.m. and 11:00 a.m.

(d) The City Manager, or his/her designee, will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate Stage 1 voluntary measures to reduce water use by 5%.

Stage 2 - Moderate Water Shortage Conditions

Goal

Achieve a 10% reduction in total water use.

Voluntary Water Use Restrictions

All requirements of Stage 1 shall remain in effect during Stage 2, in addition to the following water use restrictions:

(a) Landscape irrigation use will be restricted on a voluntary basis to the hours of 5:00 p.m. to 8:00 a.m.

(b) The City Manager, or his/her designee, will initiate monthly contact with wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale

water customers initiate Stage 2 voluntary measures to reduce water use by 10%.

Stage 3 - Severe Water Shortage Conditions

Goal

Achieve a 15% reduction in total water use.

Water Use Restrictions

All requirements of Stage 2 shall become mandatory, and under threat of penalty for violation, the following water use restrictions shall also apply to all persons:

(a) All outdoor irrigation by hose-end sprinklers, automatic sprinkler system, soaker hoses, or drip irrigation may occur only between the hours of 12:00 midnight to 10:00 a.m. and 6:00 p.m. to 12:00 midnight. Irrigation by hand-held hoses or hand-held buckets is permitted anytime. The time restrictions do not apply to the irrigation of commercial plant nurseries; however, these establishments shall curtail all non-essential water use.

(b) The washing of automobiles, trucks, trailers, boats, airplanes, or other types of mobile equipment is prohibited except between the hours of 12:00 midnight to 10:00 a.m. and 6:00 p.m. to 12:00 midnight. The washing, when allowed, must be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. However, this restriction does not apply to the washing of vehicles or mobile equipment when conducted on the immediate premises of a commercial car wash or a commercial service station. Furthermore, this restriction does not apply to the washing of automobiles, trucks, trailers, boats, airplanes, and other types of mobile equipment (such as garbage trucks and vehicles to transport food and perishables) when the washing is necessary on a more regular and frequent basis in order to protect the health, safety and welfare of the public. Charity car washes are prohibited.

(c) Use of water to fill, refill, or add to any indoor or outdoor swimming, wading, or jacuzzi-type pool is prohibited except between the hours of 12:00 midnight to 10:00 a.m. and 6:00 p.m. to 12:00 midnight.

(d) The City Manager, or his/her designee, will initiate weekly contact with wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate Stage 3 mandatory measures to reduce water use by 15%.

Stage 4 - Critical Water Shortage Conditions

Goal

Achieve a 20% reduction in daily water demand.

Water Use Restrictions

All requirements of Stage 3 shall remain in effect during Stage 4. Under threat of penalty for violation, the following water use restrictions shall also apply to all persons:

(a) Irrigation by hand-held hoses or hand-held buckets is permitted on designated days only, and only between the hours of 8:00 p.m. and 4:00 a.m. Outdoor irrigation by hose-end sprinklers, automatic sprinkler system, soaker hoses, or drip irrigation is prohibited.

(b) The use of water for washing sidewalks, driveways, parking areas, streets, tennis courts, patios, or other paved areas, except to alleviate immediate health or fire hazards is prohibited.

(c) The washing of dwellings, office buildings, business and/or industrial equipment or machinery, and the use of water for the operation of any ornamental water fountains or similar structures are prohibited.

(d) Knowingly permitting the escape of water through defective plumbing is prohibited.

(e) The City Manager, or his/her designee, will initiate weekly contact with wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate Stage 4 mandatory measures to reduce water use by 20%.

Stage 5 - Emergency Water Shortage Conditions

Goal

In the event of failure or contamination of a major component of the water system, discontinue operation of the water system, or that portion of the system affected.

Water Use Restrictions

The City Manager will manage the City of Vernon limited water supply by requiring such measures as are necessary to maintain public health and safety, including elimination of service to part, or all, of the water system.

Industries will be asked to curtail first, in the following order, which was determined in order by the highest users:

1. Rhodia, Inc
2. Tyson Foods Inc.

All other institutions will be asked to conserve water, except when it comes to health and well-being of their patients and/or clients, and will be expected to implement their own conservation plans.

SECTION X: PRO RATA WATER ALLOCATION

In the event that the triggering criteria specified in Section VIII of the Plan for Stage 4 – Critical Water Shortage Conditions have been met, the City Manager is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with the Texas Water Code Section 11.039.

SECTION XI: WATER SUPPLY DEPLETED

In the event that the water supply is totally depleted, then the City Manager is hereby authorized to transport potable water supplies into Vernon by truck. The potable water supplies are only for drinking and health related purposes and can be in bulk form or bottled.

SECTION XII: EXEMPTIONS

The restrictions set forth in Section IX shall not apply to the following uses of water:

(a) To alleviate conditions threatening health, safety, or welfare of the public.

(b) For municipal operations of flushing water lines for public health purposes.

(c) For the suppression of fires.

(d) For commercial businesses that use water to maintain (but not expand) their primary business practices (e.g., commercial car and truck washes, nurseries, turf growers, water haulers, concrete pavers, etc.).

SECTION XIII: ENFORCEMENT

All violations of Stages 3 through 5 shall be punished by a fine of not less than ten dollars ($10.00) per day nor more than two hundred dollars ($200.00) per day for each day of violation. Each and every day of any violation shall constitute a separate offense in accordance with the Code of Ordinances of Vernon, Texas.

All violations by wholesale water customers when pro rata allocation of available water supplies is in effect, shall pay: (a) a 5% surcharge on excess water deliveries above the 5% reduction on the monthly allocation; (b) a 10% surcharge on excess water deliveries above the 10% reduction on the monthly allocation; (c) a 15% surcharge on excess water deliveries above the 15% reduction on the monthly allocation; and (d) a 20% surcharge on excess water deliveries above the 20% reduction on the monthly allocation. These surcharges are not cumulative.

SECTION XIV: VARIANCES

(a) The City Commission, or it's designee, may in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

(1) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.

(2) Alternative methods can be implemented that will achieve the same level of reduction in water use.

(b) Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the City of Vernon within 5 days after the Plan for a particular drought response stage has been invoked. The City Commission shall review all petitions for variances, or their designee, and shall include the following:

(1) Name and address of the petitioner(s).

(2) Purpose of water use.

(3) Specific provision(s) of the Plan from which the petitioner is requesting relief.

(4) Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Plan.

(5) Description of the relief requested.

(6) Period of time for which the variance is sought.

(7) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.

(8) Other pertinent information.

(c) Variances granted by the City of Vernon shall be subject to the following conditions, unless waived or modified by the City Commission, or it's designee:

(1) Variances granted shall include a timetable for compliance.

(2) Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

(d) No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

APPENDIX-A

<<Prev Rule

Texas Administrative Code

Next Rule>>

TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 288	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
SUBCHAPTER A	WATER CONSERVATION PLANS
RULE §288.2	**Water Conservation Plans for Municipal Uses by Public Water Suppliers**

(a) A water conservation plan for municipal water use by public water suppliers must provide information in response to the following. If the plan does not provide information for each requirement, the public water supplier shall include in the plan an explanation of why the requirement is not applicable.

(1) Minimum requirements. All water conservation plans for municipal uses by public drinking water suppliers must include the following elements:

(A) a utility profile including, but not limited to, information regarding population and customer data, water use data, water supply system data, and wastewater system data;

(B) until May 1, 2005, specification of conservation goals including, but not limited to, municipal per capita water use goals, the basis for the development of such goals, and a time frame for achieving the specified goals;

(C) beginning May 1, 2005, specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use, in gallons per capita per day. The goals established by a public water supplier under this subparagraph are not enforceable;

(D) metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply;

(E) a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement;

(F) measures to determine and control unaccounted-for uses of water (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections; abandoned services; etc.);

(G) a program of continuing public education and information regarding water conservation;

(H) a water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water;

(I) a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin in order to optimize available water supplies; and

(J) a means of implementation and enforcement which shall be evidenced by:

(i) a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the water supplier; and

(ii) a description of the authority by which the water supplier will implement and enforce the conservation plan; and

(K) documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

(2) Additional content requirements. Water conservation plans for municipal uses by public drinking water suppliers serving a current population of 5,000 or more and/or a projected population of 5,000 or more within the next ten years subsequent to the effective date of the plan must include the following elements:

(A) a program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control unaccounted-for uses of water;

(B) a record management system to record water pumped, water deliveries, water sales, and water losses which allows for the desegregation of water sales and uses into the following user classes:

(i) residential;

(ii) commercial;

(iii) public and institutional; and

(iv) industrial;

(C) a requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

(3) Additional conservation strategies. Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements in paragraphs (1) and (2) of this subsection, if they are necessary to achieve the stated water conservation goals of the plan. The commission may require that any of the following strategies be implemented by the water supplier if the commission determines that the strategy is necessary to achieve the goals of the water conservation plan:

(A) conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;

(B) adoption of ordinances, plumbing codes, and/or rules requiring water-conserving plumbing

fixtures to be installed in new structures and existing structures undergoing substantial modification or addition;

(C) a program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;

(D) reuse and/or recycling of wastewater and/or graywater;

(E) a program for pressure control and/or reduction in the distribution system and/or for customer connections;

(F) a program and/or ordinance(s) for landscape water management;

(G) a method for monitoring the effectiveness and efficiency of the water conservation plan; and

(H) any other water conservation practice, method, or technique which the water supplier shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

(b) A water conservation plan prepared in accordance with 31 TAC §363.15 (relating to Required Water Conservation Plan) of the Texas Water Development Board and substantially meeting the requirements of this section and other applicable commission rules may be submitted to meet application requirements in accordance with a memorandum of understanding between the commission and the Texas Water Development Board.

(c) Beginning May 1, 2005, a public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next revision of its water conservation plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group.

Source Note: The provisions of this §288.2 adopted to be effective May 3, 1993, 18 TexReg 2558; amended to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384

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APPENDIX - B

MEMO

TO: Jerry Rogers – Finance Director

FROM: Bob Cochran – Utilities Director

DATE: December 19, 2005

SUBJECT: Water Conservation – Water Meter Change-out Program

During October 2005, I explained to Bryan Pilcher and Monica Chapman, the need to start a 10-year Meter Change-out Program. I also explained that based on an average 4480 active water meters that it would be necessary to change out approximately 37 water meters per month. And we agreed to begin with the oldest meters, and work from there, beginning in November 2005.

As of Friday December 16, 2005 only 5 old water meters had been changed-out and these were done on November 8, 2005.

When I spoke with Bryan and Monica last Friday about this, they indicated to me that more meters weren't done due to the holiday season and other work activities.

It is imperative that this program be given the appropriate priority, and I spoke with Bryan and Monica about this last Friday.

Monica needs to generate a minimum of 37 work orders monthly for changing out the oldest meters. These work orders are to be given directly to Bryan and when completed Monica is to record the new meter numbers and readings and forward the work orders to me for fling and historical tracking.

Thank you,

Bob Cochran

310

APPENDIX-C

099878

E City of Vernon
Water
CCN Service Area Description

24 pg

FILED AT 9:00 O'CLOCK AM
Bettie Thompson, COUNTY CLERK
WILBARGER COUNTY, TEXAS

DEC 29 2006

By Jani Bermudez Deputy

Beginning, at a point on north Main Street, at the intersection of Rhoads Street, going west for approximately 2,400 feet to the corner of Nabers Street,

Thence, south for approximately 600 feet to the Burlington Northern Railroad,

Thence, west for approximately 7,600 feet where the Burlington Northern Railroad intersects with US Highway 287 North.

Thence, south along US Highway 287 for approximately 1,900 feet to the intersection with Country Club Drive,

Thence, west for approximately 2,500 feet to a point 1200 feet north of Palmer Street,

Thence, south 1,200 feet to the north dead-end of Palmer Street,

Thence, west approximately 3,500 feet to the north dead-end of St. James Road,

Thence, south approximately 3,600 feet to US Highway 70,

Thence, east from US Highway 70 and along Yamparika Street for approximately 3,200 feet,

Thence, south approximately 2,200 feet to Cottonwood Lane,

Thence, east along Cottonwood Lane for approximately 800 feet, to High School Drive,

Thence, south from High School Drive for approximately 3,600 feet to the south end of the alley west of Oak Lawn ,

Thence, east for approximately 2,000 to Sand Road,

Thence, south along Sand Road for approximately 2,200 feet to a point at the southwest corner of the Orbison Park,

Thence, east along the south boundary of Orbison Park for approximately 800 feet to a point,

Thence, north along the east boundary of Orbison Park for approximately 2,200 feet to a Ball Park Road,

Thence, west along Ball Park Road for approximately 800 feet to Sand Road,

Thence, north along Sand Road for approximately 1,200 feet to a point,

Thence, east for approximately 1,300 feet to Roberts Street,

APPENDIX - C

Thence, approximately 200 feet north to a point,

Thence, approximately 1,300 to a point approximately 200 feet north of Highland Park Drive.

Thence, east along Highland Park Drive for approximately 2,600 feet to the intersection of Peter Cooper Street,

Thence, south to a point approximately 2,400 feet,

Thence, east for approximately 1,200 feet to a point,

Thence, north for approximately 600 feet,

Thence, east for approximately 1,200 feet to Violet Street,

Thence, north on Violet Street for approximately 600 feet to Canal Street,

Thence, from the intersection of Canal Street and Violet Street for approximately 3,700 to Harrold Street,

Thence, north along Harrold Street for approximately 1,400 feet to Anna Street,

Thence, north along Anna Street for approximately 1,300 feet to Wilbarger Street,

Thence, east along Wilbarger Street for approximately 2,000 to FM Road 1949,

Thence, north along FM Road 1949 for approximately 1,900 feet to US Highway 287,

Thence, west along US Highway 287 for approximately 4,200 feet to the Laurie Street intersection,

Thence, north from Laurie Street to a point at approximately 600 feet,

Thence, west northwest for approximately 3,400 feet to a point,

Thence, north for approximately 600 feet,

Thence, west for 600 feet to Main Street (US Highway 283 north) to the point of beginning to close.

APPENDIX - C

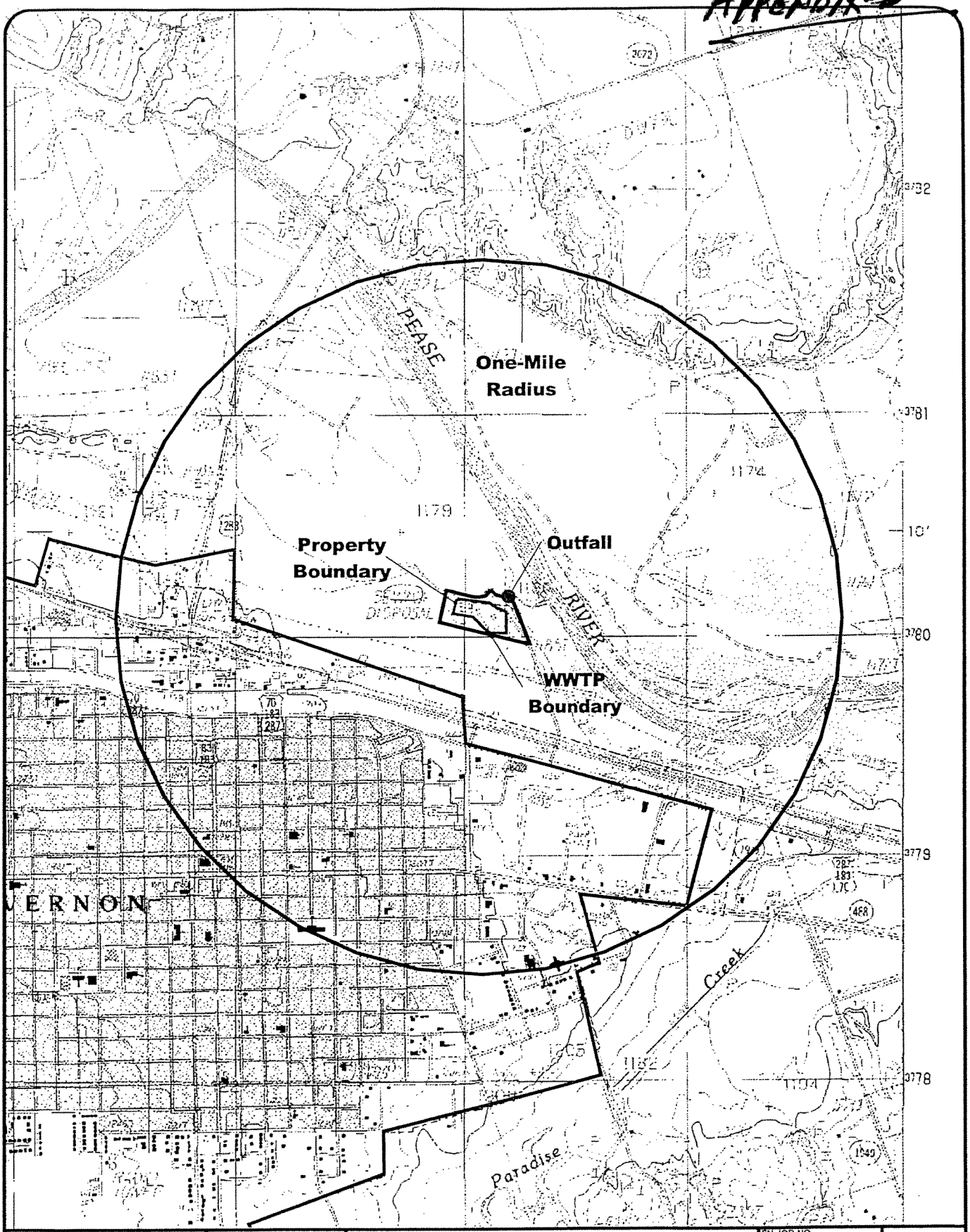
CITY OF VERNON
WILBARGER COUNTY, TEXAS

TERRITORY SERVED BY WATER SYSTEM

STATE OF TEXAS COUNTY OF WILBARGER
I hereby certify that this instrument was filed and time stamped hereon by me and was duly recorded in the Official Public Records of Wilbarger County, Texas. VOL. 586 PAGE 310
Bettie Thompson
Wilbarger County Clerk
Deputy

FILED
Bettie Thompson, County Clerk
Wilbarger County, Texas
DEC 29 2006
By Deputy

Appendix-D



FREESE • NICHOLS
4055 International Plaza Suite 200
Fort Worth, Texas 76109 4895
817 735 7300

N W E S

Topographic Map

2000 0 2000 Feet

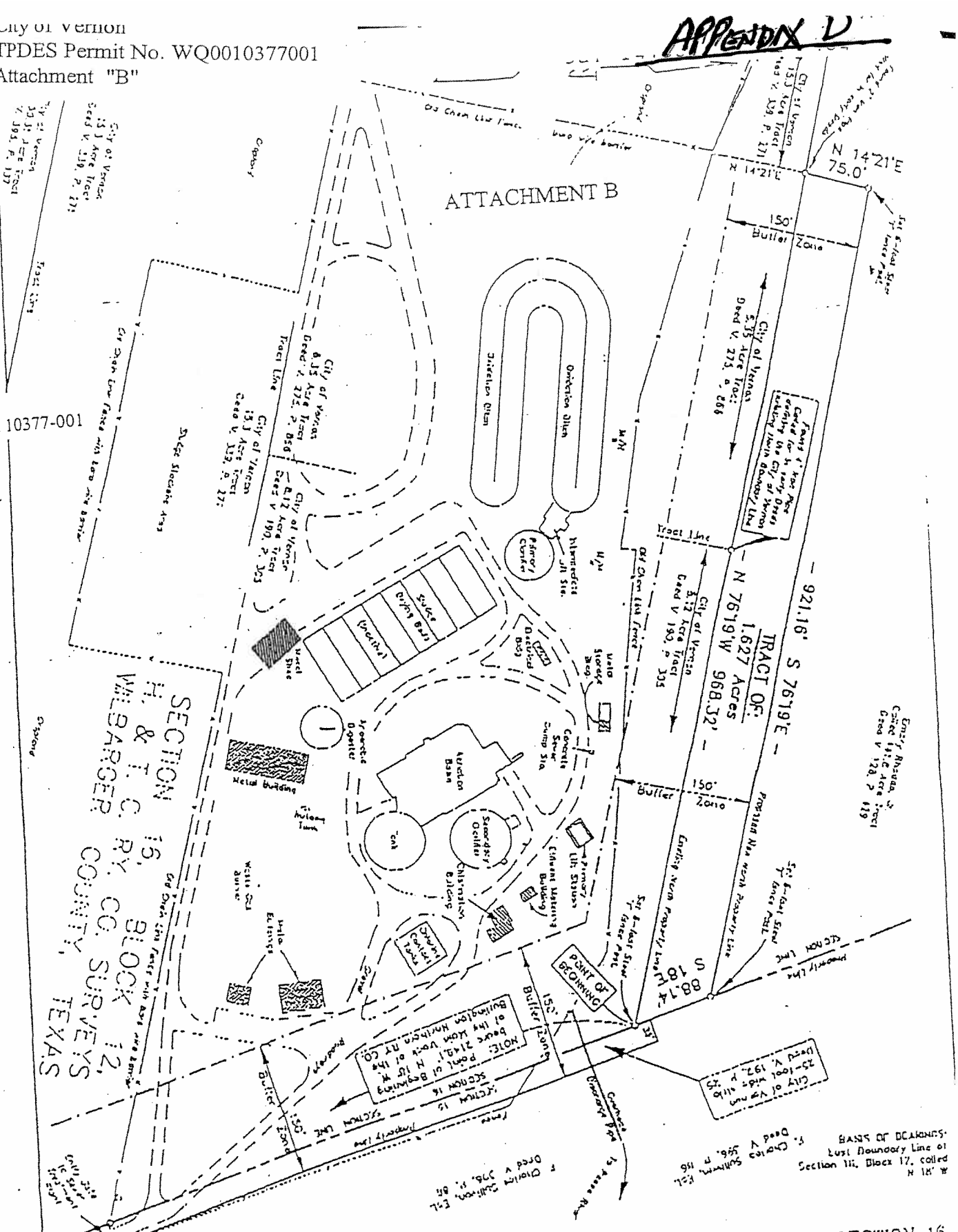
FN JOB NO	VRN00000
FILE	T:\GIS\V256S6Y0.APR
DATE	May 18, 2001
SCALE	1:41,592
DESIGNED	LDC
DRAFTED	LDC

C

EXHIBIT

APPENDIX D

y of Vernon
DES Permit No. 10377-001



SURVEY OF A TRACT OF 1.627 ACRES OF LAND OUT OF SECTION 16, BLOCK 12, H. & T. C. RY. CO. SURVEY, WILBARGER COUNTY, TEXAS, 1 MILE NE OF VERNON, AND BEING ADJACENT TO AND NORTH OF THE CITY OF VERNON SEWER TREATMENT PLANT.

RECEIVED
JUL 24 2001
WATER QUALITY APPLICATIONS TEAM

I, GARY S. NAYLOR, REGISTERED PROFESSIONAL SURVEYOR NO. 2431 IN THE STATE OF TEXAS, HEREBY CERTIFY THAT THE FOREGOING PLAT AND ATTACHED FIELD NOTES ARE TRUE AND CORRECT ACCORDING TO THE PLAT OF RECORD AND A

ENGINEERING SURVEYS

APPENDIX-E

TEXAS WATER DEVELOPMENT BOARD
P.O. BOX 13231, CAPITOL STATION
AUSTIN, TX 78711-3231
2005 WATER AUDIT REPORTING FORM
AVAILABLE ONLINE AT: WWW.TWDB.STATE.TX.US/ASSISTANCE/CONSERVATION

Texas Water Development Board
Mark Mathis, Conservation Division
P.O. Box 13231
Austin, TX 78711
(512.463.0987)
Email: Mark.Mathis@twdb.state.tx.us

Utility Name: City of Vernon PWS 2440001

Type of Utility: (circle one) WSC MUD WCID SUD (CITY) Other_____

Regional Water Planning Group(s) in which this system operates: _____
http://www.twdb.state.tx.us/mapping/maps/pdf/sb1_groups_8x11.pdf

Name of person completing this form: Bob Cochran

Phone number of person completing form (area code) (940) 552-9961

Mailing address of Utility: 2015 Oak St.; Vernon, TX 76384

Reporting Period: From January 1, 2005 To December 31, 2005

Percentage of water used: Surface_____ Groundwater 100%

Mean household income of population served: Not available
http://factfinder.census.gov/servlet/SAFFPeople

Population served 11,500

Note: unit of measure (Acre-feet or Million gallons per year) must stay consistent throughout report

1. SYSTEM INPUT VOLUME (MG) ACRE-FT OTHER_____

System Input Volume - Amount of water put into delivery system: 897,758,457

Production Meter Adjustment – Volume production meter did not read: +/- N/A

Corrected Input Volume - Water delivery plus/minus Production Meter Adjustment: 897,758,457

2. AUTHORIZED CONSUMPTION

Billed Metered - All water sold: 810,824,000

Billed Unmetered - All water sold but not metered: 0

Unbilled metered - City parks, golf course use, metered line flushing: 2,833,000

Unbilled unmetered - Line flushing/fire dept use: (estimate) 75,000

Authorized Consumption - The total of all authorized consumption: 813,732,000

APPENDIX - E

3. WATER LOSS

Apparent Loss

Customer Meter Accuracy – Inaccurate meters, volume of water +/- N/A

Billing Adjustment/Waivers (Unbilled consumption) 0 (NOT SIGNIFIC[ANT] and NOT TRACKED)

Unauthorized consumption (estimate) 448,879 (ASSUMPTION .05%

Total of Apparent Loss 448,879

Real Loss

Main break/leaks: (estimate) (500,000 1/12/05 TRANSMISSION LINE) 1,397,758 ~~897,758~~ (ASSUMP[TION] 0.1 %

Customer service line leaks/breaks: (estimate) 16,750 (ASSUMPTI[ON] 335 X 50)

Storage tank overflows: (estimate) 250,000 (SOUTH TO[WER]

The Total of Real Loss 1,664,508

Total Water Loss = Apparent Loss + Real Loss 2,113,387

4. TECHNICAL PERFORMANCE INDICATORS

Performance Indicators for Real Losses

Your utility's number of service connections	4652
Your utility's number of miles of main lines	90
Service connections by miles of main	52
Total Real Loss/Miles of Main/365 days	35.5
Total Real Loss/No. of Service Connections/365 days	0.686

5. FINANCIAL PERFORMANCE INDICATORS

Total Real Loss 1,664,508

Production cost of water

427,939 – LABOR
$161,306.99 / electrical
$90,000 – Chemical
679,245.99 ÷ 897,758,459 = .76 ¢ / 1000

Total Real Loss multiplied by production cost of water: 1,265.03

Total Apparent Loss 448,879

Retail cost of water

1/05 - 9/05 = 2.14
10/05 - 12/05 = 2.38

19.26
1.14
2.20

Total Apparent Loss multiplied by retail cost of water: 987.53

APPENDIX - F

WRD-264 (2-25-05)

TEXAS WATER DEVELOPMENT BOARD

UTILITY PROFILE

The purpose of the Utility Profile is to assist with water conservation plan development and to ensure that important information and data be considered when preparing your water conservation plan and its target and goals. Please complete all questions as completely and objectively as possible. See *Water Conservation Plan Guidance Checklist* (WRD-022) for information on other water conservation provisions. You may contact the Municipal Water Conservation Unit of the TWDB at 512-936-2391 for assistance.

APPLICANT DATA

Name of Utility: City of Vernon

Address & Zip: 1725 Wilbarger Street - 76384

Telephone Number: 940)552-9961 Fax: 940)553-1622

Form Completed By: David Templeton Title: Water Distribution Supervisor

Signature: [signature] Date: _____

Name and Phone Number of Person/Department responsible for implementing a water conservation program:

Name: David Templeton Phone: 940)552-9961

UTILITY DATA

I. CUSTOMER DATA

A. Population and Service Area Data

1. Please attach a copy of your Certificate of Convenience and Necessity (CCN) from the TCEQ

2. Service area size (square miles): approx. 900

APPENDIX - F

3. Current population of service area: 12500

4. Current population served by utility: a: water 4429
b: wastewater 4062

5. Population served by water utility for the previous five years:

Year	Population
2008	12500
2007	12500
2006	13288
2005	11077
2004	12793

6. Projected population for service area in the following decades:

Year	Population
2010	unknown
2020	unknown
2030	unknown
2040	unknown
2050	unknown

7. List source(s)/method(s) for the calculation of current and projected population:
Work Force Commission

B. Active Connections

1. Current number of active connections by user type. If not a separate classification, check whether multi-family service is counted as Residential _____ or Commercial ✓

Treated water users:	Metered	Not-metered	Total
Residential-Single-Family	3835	Ø	3838
Residential-Multi-Family	86	Ø	86
Commercial	582	Ø	582
Industrial	6	Ø	6
Public		Ø	
Other	90	Ø	90

APPENDIX - F

2. List the net number of new connections per year for most recent three years:

Year	2006	2007	2008
Residential –Single-Family	3786	3852	3838
Residential-Multi-Family	85	85	86
Commercial	563	582	582
Industrial	6	6	6
Public			
Other	90	90	90

C. High Volume Customers

List annual water use for the five highest volume retail and wholesale customers (Please indicate if treated or raw water delivery.)

	Customer	Use (1,000gal./yr.)	indicate Treated **OR** Raw
(1)	Rhodia	202,161,000	Treated / Raw
(2)	Tyson	75,663,000	Treated
(3)	Red River Auth.	55,142,000	Treated / Raw
(4)	Northside Water Supply	14,680,000	Raw
(5)	Tex. MHMR Hospital	14,680,000	Treated

APPENDIX-F

II. WATER USE DATA FOR SERVICE AREA

A. Water Accounting Data

1. Amount of water use for previous five years (in 1,000 gal.):
Please indicate: Diverted Water _____
Treated Water ✓

Year	2008	2007	2006	2005	2004
January	69,605,120	66,148,500	80,080,870	65,639,400	96,131,000
February	58,699,620	58,720,300	59,021,500	55,726,000	103,492,000
March	58,836,360	63,497,900	74,154,360	67,105,351	85,730,000
April	66,611,505	64,775,900	90,518,010	82,537,600	83,870,000
May	67,637,430	61,605,800	88,940,720	73,320,400	100,306,000
June	77,499,072	75,944,000	106,074,440	94,106,700	89,981,000
July	85,384,791	62,777,160	119,036,632	97,413,900	113,869,000
August	80,562,365	84,362,300	108,012,590	89,601,500	127,494,000
September	73,789,784	64,570,780	69,157,570	82,243,200	94,175,000
October	83,789,150	76,766,800	64,094,740	62,917,700	79,460,000
November	66,899,536	71,494,500	65,788,560	55,999,100	78,019,000
December	68,861,250	69,936,660	58,977,660	70,503,700	67,249,000
Total	856,617,783	840,485,600	980,377,617	897,758,457	959,226,000

Please indicate how the above figures were determined (e.g., from a master meter located at the point of a diversion from a stream or located at a point where raw water enters the treatment plant, or from water sales).

water Sales

2. Amount of water (in 1,000 gallons) delivered (sold) as recorded by the following account types (See #1, Appendix A) for the past five years.

Year	Residential	Commercial	Industrial	Wholesale	Other	Total Sold
2008	315,754,500	249,692,600	250,755,000	_____	_____	816,202,100
2007	305,780,000	230,362,000	228,162,000	_____	_____	764,744,000
2006	395,655,000	240,824,000	261,760,000	_____	_____	898,239,000
2005	334,715,000	240,753,000	238,189,000	_____	_____	813,657,000
2004	353,026,000	205,068,000	297,545,000	_____	_____	855,639,000

APPENDIX-F

3. List previous five years records for water loss (See #2, Appendix A)

Year	Amount (gal.)
2008	40,415,683
2007	27,000,000
2006	79,632,612
2005	81,958,070
2004	103,587,000

4. List previous five years records for annual peak-to-average daily use ratio (See #3, Appendix A)

Year	Average MGD	Peak MGD	Ratio
	DATA NOT Available		

5. Total per capita water use for previous five years (See #4, Appendix A):

Year	Population	Total Diverted (or Treated Less Wholesale Sales (1,000 gal.)	Per Capita (gpcd)
Data	Not	Available	

6. Seasonal water use for the previous five years **(in gallons per person per day)** (See #5, Appendix A):

Year	Population	Base Per Capita Use	Summer Per Capita Use
DATA	NOT	Available	

B. Projected Water Demands

Project water supply requirements for at least the next ten years using population trends, historical water use, and economic growth, etc. Indicate sources of data and how projected water demands were determined.
Attach additional sheets if necessary.

APPENDIX-F

III. WATER SUPPLY SYSTEM

A. Water Supply Sources

List all current water supply sources and the amounts available with each:

	Source	Amount Available
Surface Water:	_____	_____ MGD
Groundwater:	Water Wells	8.5 MGD
Contracts:	_____	_____ MGD
Other:	_____	_____ MGD

B. Treatment and Distribution System

1. Design daily capacity of system: 8.5 MGD

2. Storage Capacity: Elevated 1.0 MGD, Ground 1.5 MGD

3. If surface water, do you recycle filter backwash to the head of the plant? N/A
   Yes _____ No _____. If yes, approximately _____ MGD.

4. Please describe the water system. Include the number of treatment plants, wells, and storage tanks. If possible, include a sketch of the system layout.

   See Attached

APPENDIX-F

IV. WASTEWATER UTILITY SYSTEM

A. Wastewater System Data

1. Design capacity of wastewater treatment plant(s): 2.0 MGD

2. Is treated effluent used for irrigation on-site Yes, off-site No, plant washdown Yes, or chlorination/dechlorination No?
If yes, approximately 15 mil gallons per month. Could this be substituted for potable water now being used in these areas NC?

3. Briefly describe the wastewater system(s) of the area serviced by the water utility. Describe how treated wastewater is disposed of. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and, if wastewater is discharged, the receiving stream. Please provide a sketch or map which locates the plant(s) and discharge points or disposal sites.

B. Wastewater Data for Service Area

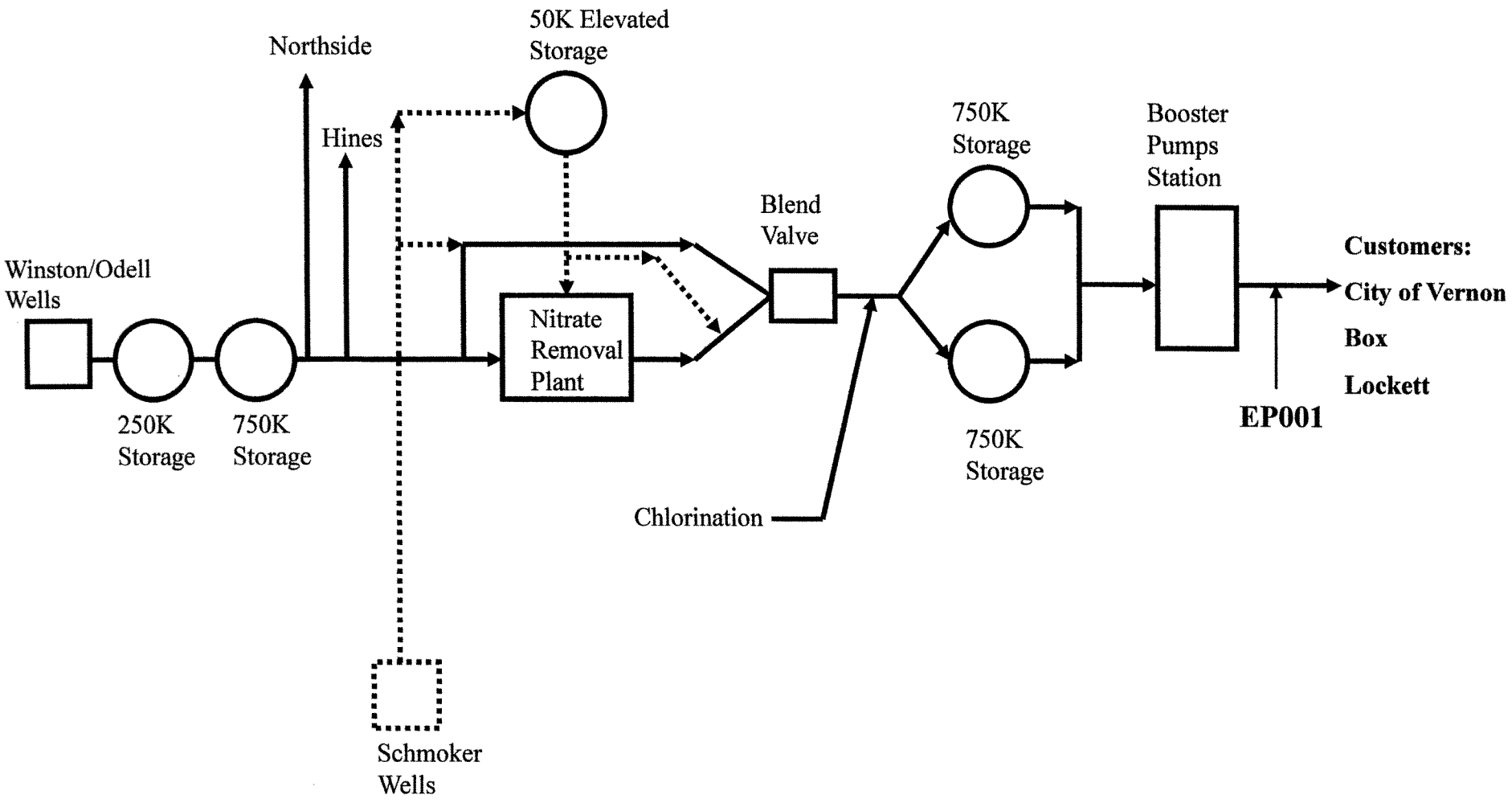
1. Percent of water service area served by wastewater system: ___%

2. Monthly volume treated for previous three years (in 1,000 gallons):

Year			
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
Total			

City of Vernon, Texas PWS ID 2440001

Entry Points



Bob Cochran

January 2004

APPENDIX-G

see water Audit Report

Texas Water Development Board
Water Audit Worksheet

A. Water Utility General Information

1. Water Utility Name: City of Vernon
2. Contact: Name David Templeton

   Telephone# 940 552-9961 Email Address · dtemp@vernontx.gov
3. Reporting Period: From 01 / 01 / 2008 to 12 / 31 / 2008
4. Source Water Utilization, percentage: Surface Water _____% Groundwater 100 %
5. Population Served:
   a. Retail Population Served _____
   b. Wholesale Population Served _____

		Assessment Scale
6. Utility's Length of Main Lines, miles	_____	_____
7. Number of Wholesale Connections Served	_____	
8. Number of Retail Service Connections Served	_____	
9. Service Connection Density *(Number of retail service connections/Miles of main lines)*	_____	
10. Average Yearly System Operating Pressure (psi)	_____	_____

11. Volume Units of Measure (check one):
    _____ acre-ft _____ million gallons _____ thousand gallons _____ gallons

B. System Input Volume

12. Water Volume from own Sources	_____	_____
13. Production Meter Accuracy (enter percentage)	_____%	_____
14. Corrected Input Volume	_____	
15. Wholesale Water Imported	_____	_____
16. Wholesale Water Exported	_____	_____
17. **System Input Volume** *(Corrected input volume, plus imported water, minus exported water)*	_____	

APPENDIX - G

		Assessment Scale
C. Authorized Consumption		
18. Billed Metered	_____	_____
19. Billed Unmetered	_____	_____
20. Unbilled Metered	_____	_____
21. Unbilled Unmetered	_____	_____
22. Total Authorized Consumption	_____	
D. Water Losses		
23. Water Losses *(Line 17 minus Line 22)*	_____	
E. Apparent Losses		
24. Average Customer Meter Accuracy *(Enter percentage)*	_____%	_____
25. Customer Meter Accuracy Loss	_____	
26. Systematic Data Handling Discrepancy	_____	_____
27. Unauthorized Consumption	_____	_____
28. Total Apparent Losses	_____	
F. Real Losses		
29. Reported Breaks and Leaks *(Estimated volume of leaks and breaks repaired during the audit period)*	_____	_____
30. Unreported Loss *(Includes all unknown water loss)*	_____	_____
31. Total Real Losses *(Line 29, plus Line 30)*	_____	
32. Water Losses (Apparent + Real) *(Line 28 plus Line 31) = Line 23*	_____	
33. Non-revenue Water (Water Losses + Unbilled Authorized Consumption) *(Line 32, plus Line 20, plus Line 21)*	_____	

APPENDIX -

Assessment Scale

G. Technical Performance Indicator for Apparent Loss

34. Apparent Losses Normalized
(Apparent Loss Volume/# of Retail Service Connections/365) _____

H. Technical Performance Indicators for Real Loss

35. Real Loss Volume *(Line 31)* _____

36. Unavoidable Annual Real Losses, volume (calculated) _____

37. Infrastructure Leakage Index (calculated) _____
(Equals real loss volume divided by unavoidable annual real losses)

38. Real Losses Normalized
(Real Loss Volume/# of Service Connections/365) _____
(This indicator applies if service connection density is greater than 32/mile)

39. Real Losses Normalized
(Real Loss Volume/Miles of Main Lines/365) _____
(This indicator applies if service connection density is less than 32/mile)

I. Financial Performance Indicators

40. Total Apparent Losses *(Line 28)* _____

41. Retail Price of Water _____ _____

42. Cost of Apparent Losses _____
(Apparent loss volume multiplied by retail cost of water, Line 40 x Line 41)

43. Total Real Losses *(Line 31)* _____

44. Variable Production Cost of Water* _____ _____
*(*Note: In case of water shortage, real losses might be valued at the retail price of water instead of the variable production cost.)*

45. Cost of Real Losses _____
(Real loss multiplied by variable production cost of water, Line 43 x Line 44)

46. Total Assessment Score _____

47. Total Cost Impact of Apparent and Real Losses _____

APPENDIX-H

TEXAS WATER DEVELOPMENT BOARD

Municipal Water Use Survey For The Calendar Year Ending December 31, 2008
Answer Sheet

PLEASE ENTER YOUR TWDB CODE HERE

To ensure proper check-in of your survey,

PLEASE ENTER THE SYSTEM / FACILITY NAME
AND ADDRESS HERE AS PRINTED ON THE SURVEY

Please correct address information as needed.

TCEQ PWS code 2440001

A. GROUNDWATER INTAKE

A1.	Active Wells	34
A2.	Inactive/Operable	6
A3.	Counties/Wells	Wilbarger
A4.	Aquifer(s)	Seymour

		Source 1	Source 2	Source 3	Source 4
A5.	Source Type	SG	SG or PG	SG or PG	SG or PG
A6.	Supplier	n/a	n/a	n/a	n/a
A7.	Jan	69,605,120 gal.	N/A gal.	N/A gal.	N/A gal.
	Feb	58,699,620 gal.	N/A gal.	N/A gal.	N/A gal.
	Mar	58,838,360 gal.	N/A gal.	N/A gal.	N/A gal.
	Apr	65,611,505 gal.	N/A gal.	N/A gal.	N/A gal.
	May	67,637,430 gal.	N/A gal.	N/A gal.	N/A gal.
	June	77,499,072 gal.	N/A gal.	N/A gal.	N/A gal.
	July	85,384,291 gal.	N/A gal.	N/A gal.	N/A gal.
	Aug	80,562,365 gal.	N/A gal.	N/A gal.	N/A gal.
	Sep	73,789,784 gal.	N/A gal.	N/A gal.	N/A gal.
	Oct	83,289,150 gal.	N/A gal.	N/A gal.	N/A gal.
	Nov	66,899,836 gal.	N/A gal.	N/A gal.	N/A gal.
	Dec	68,801,250 gal.	N/A gal.	N/A gal.	N/A gal.
	Total	882,554,064 gal.	N/A gal.	N/A gal.	N/A gal.
A8.	% Treated	100%	N/A gal.	N/A gal.	N/A gal.
A9.	Metered/Estimated	E	N/A gal.	N/A gal.	N/A gal.

A10.	SG Total	856,617,783	gallons
A11.	PG Total	N/A	gallons

B. SURFACE WATER INTAKE

		Source 1	Source 2	Source 3	Source 4
B1.	Source Type	n/a	n/a	n/a	n/a
B2.	Supplier/Source	n/a	n/a	n/a	n/a
B3.	WR #	n/a	n/a	n/a	n/a
B4.	Conveyed	n/a	n/a	n/a	n/a
B5.	County(ies)	n/a	n/a	n/a	n/a
B6.	Jan	n/a	n/a	n/a	n/a
	Feb	n/a	n/a	n/a	n/a
	Mar	n/a	n/a	n/a	n/a
	Apr	n/a	n/a	n/a	n/a
	May	n/a	n/a	n/a	n/a
	Jun	n/a	n/a	n/a	n/a
	Jul	n/a	n/a	n/a	n/a
	Aug	n/a	n/a	n/a	n/a
	Sep	n/a	n/a	n/a	n/a
	Oct	n/a	n/a	n/a	n/a
	Nov	n/a	n/a	n/a	n/a
	Dec	n/a	n/a	n/a	n/a
	Total	n/a	n/a	n/a	n/a
B7.	% Treated	n/a	n/a	n/a	n/a
B8.	Metered/Estimated	n/a	n/a	n/a	n/a
		n/a	n/a		
B9.	SS Total	n/a	n/a	gallons	
B10.	PS Total	n/a	n/a	gallons	

C. WATER SALES

		Buyer 1	Buyer 2	Buyer 3	Buyer 4
C1.	Buyer	Rhodia	Tyson Foods	Red River Water Auth	Northside-White City
C2.	Quantity	202,161,000 gal.	75,662,000 gal.	55,142,000 gal.	14,680,000 gal.
C3.	Treatment	B	T	B	R
C4.	County	Wilbarger	Wilbarger	Wilbarger	Wilbarger

Buyer - 5 North Texas State Hospital - 14,680,000 gal. (Treated)

APPENDIX -H

D. WATER SYSTEM INFORMATION:

D1.	TCEQ PWS code	2440001	
D2.	Res. Population	12,500	
D3.	Service Conn.	4582	
D4.	S-F Conn.	3838	
D5.	M-F Units	86	
D6.	Comm./Inst. Conn.	582	
D7.	Industrial Conn.	6	
D8.	Other Conn.	90	
D9.	% Conn. Metered	100	%

		City 1	City 2	City 3	City 4
D10.	City	Vernon/Wilbarger Co.	N/A	N/A	N/A
D11.	Connections	4582	N/A	N/A	N/A

		County 1	County 2	County 3	County 4
D12.	County	N/A	N/A	N/A	N/A
D13.	Connections	N/A	N/A	N/A	N/A

D14. - D17.	D14. Single-Family Residential	D15. Multi-Family Residential	D16. Commercial/ Institutional	D17. Industrial
Jan	20,481,000 gal.	2,924,000 gal.	19,897,000 gal.	23,626,000 gal.
Feb	18,895,000 gal.	2,984,000 gal.	16,227,000 gal.	17,271,000 gal.
Mar	18,462,000 gal.	2,700,000 gal.	16,870,000 gal.	17,898,000 gal.
Apr	21,887,000 gal.	2,987,000 gal.	17,770,000 gal.	19,547,000 gal.
May	24,824,000 gal.	2,785,000 gal.	17,428,000 gal.	18,953,000 gal.
June	27,063,000 gal.	2,763,000 gal.	22,569,000 gal.	21,909,000 gal.
July	32,323,000 gal.	4,129,000 gal.	23,851,000 gal.	20,938,000 gal.
Aug	23,665,400 gal.	4,620,000 gal.	26,397,600 gal.	22,707,000 gal.
Sep	22,583,100 gal.	3,196,000 gal.	23,807,000 gal.	20,824,000 gal.
Oct	25,274,000 gal.	3,162,000 gal.	29,342,000 gal.	21,545,000 gal.
Nov	21,526,000 gal.	2,733,000 gal.	17,829,000 gal.	21,505,000 gal.
Dec	20,626,000 gal.	3,162,000 gal.	17,705,000 gal.	24,032,000 gal.
Total	277,609,500 gal.	38,145,000 gal.	249,692,600 gal.	250,755,000 gal.

D18.	Total Metered	816,202,100	gallons
D19.	Total Unmetered	0	gallons
D20.	Total Water Loss	40,415,683	gallons
D21.	Water Restrictions	0	days
D22.	Primary Use	Normal Use	

E. REUSE (DIRECT & INDIRECT) / SALINE WATER USE

E1.	Direct Reuse	N/A	Y or N
E2.	Total Direct Reuse	N/A	gallons
E3.	% Industrial	N/A	%
E4.	% Landscape	N/A	%
E5.	% Agricultural	N/A	%
E6.	% Other	N/A	%
E7.	Indirect Reuse	N/A	Y or N
E8.	Total Indirect Reuse	N/A	gallons
E9.	Saline Water	N/A	Y or N
E10.	Total Saline Water	N/A	gallons
E11.	Saline Water TDS	N/A	TDS (ppm)

F. COMMENTS AND CONTACT INFORMATION

F1.	Comments	None
F2.	Name	Bob Cochran
F3.	Title	Director of Public Works
F4.	Phone	(940) 552-9961 ext. 1
F5.	Email Address	rcochran@vernontx.gov
F6.	General Email	rfcochrancsp@yahoo.com
F7.	Date	6-Mar-09